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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/155,635	07/09/99	SATO	H 48699

IM22/0212  
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130 WATER STREET  
BOSTON MA 02109

EXAMINER

CHANEY, C

ART UNIT	PAPER NUMBER
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1745

DATE MAILED:

02/12/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/155,635

Applicant(s)

SATO ET AL.

Examiner

Carol Chaney

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- 1) ☐ Responsive to communication(s) filed on 20 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1,3,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1,3,9 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims: \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some \* c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) \_\_\_\_\_.
3. ☒ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

## Attachment(s)

- 14) ☐ Notice of References Cited (PTO-892)
- 15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 17) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☐ Other: \_\_\_\_\_

Art Unit: 1745

***Continued Prosecution Application***

1. The request filed on 11-20-00 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/155,635 is acceptable and a CPA has been established. An action on the CPA follows.

***Specification***

2. The amendment filed 12-6-00 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The addition of the units  $\text{m}^2/\text{g } \mu\text{m}^{-0.6}$  to the number '42' in the equation  $y = 42x^{-0.6}$  does not appear to be supported by the application as originally filed. Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 112***

3. Claims 1, 3, 9 and 10 <sup>are</sup> rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. As discussed above,

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Art Unit: 1745

the addition of the units  $\text{m}^2/\text{g } \mu\text{m}^{-0.6}$  to the number '42' in the equation  $y = 42x^{-0.6}$  does not appear to be supported by the application as originally filed.

***Claim Rejections - 35 USC 102***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 3, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Omaru et al. (US Patent 5,561,005) with evidence shown by Omaru et al. in US Patent 5,639,575 and Fauteux in US Patent 5,512,392, for reasons of record.

Omaru et al. disclose a secondary lithium battery having a graphitic anode formed from "LONZA KS 75" graphite. The graphite has a particle size of 28.4 microns, and a Raman spectrum "G value" of 8.82. (Note Omaru et al., US Patent 5,561,005, column 15, lines 50-60.) LONZA KS 75 graphite will have a surface area of less than about  $7.65 \text{ m}^2/\text{g}$ , as evidenced by Fauteux in US Patent 5,512,392. (Note column 3, Table 1.)

Art Unit: 1745

***Response to Amendment***

6. The declaration under 37 CFR 1.132 filed 11-20-00 is insufficient to overcome the rejection of claims 1, 3, and 4 based upon Omaru et al. (US Patent 5,561,005) or Yamada et al. (US Patent 5,776,610) as set forth in the last Office action because: Applicants' declaration fails to provide evidence of distinctions between applicants' inventive carbon materials and the prior art carbon materials. As noted by the applicants, there appears to be about a 10% experimental uncertainty in the values of carbon particle sizes and surface areas measured. It is noted that the mathematical relations relating particle size and surface area found by the applicants for their inventive carbons and for a set of commercially available carbons are of the same functional form, differing only in the value of a constant. In both cases, surface area (y) is related to particle size (x) through the relation

$$y = Kx^{-0.62}$$

where K is a constant. For applicants' inventive materials, K is about 52, whereas for the KS series carbons, K is about 42. Applicants note in the remarks accompanying the declaration filed 12-20-2000 that "the lot-to-lot deviation in [carbon] particle size and specific surface area is about 10%. Similar 10% uncertainties in the values of the constants 42 and 52 results in essentially overlapping values of the constants. ( $42 \pm 10\%$  is 37.8 - 46.2;  $52 \pm 10\%$  is 46.8 - 57.2. It is unclear that the difference in values of the two constants is due to a patentable distinction in carbons rather than the result of experimental uncertainty.

Art Unit: 1745

**Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol Chaney whose telephone number is 703 305-3777. The examiner can normally be reached on Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Kalafut can be reached on 703-308-0433. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5885 for regular communications and 703 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Carol Chaney  
Primary Examiner  
Art Unit 1745

cc  
February 8, 2001